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ECDate : 20 Mar 06
 Release.....: 05.0

User's Guidelines Cobar 385-Tempotac

Tempotac 385 is a low residue, halide free, tacky flux, formulated for the assembly of Direct Attach Components, repair & touch-up, and other applications in the electronics industry.

The tacky flux is applied by syringe, or screen-print, and has sufficient tackiness to hold components in place prior to the reflow/soldering operation. The application of Tempotac 385 tacky flux eliminates the need to clean, and provides an aesthetically pleasing appearance. Residues that remain after reflow are minimal. They are non-corrosive, non-conductive and show excellent SIR values. They are not adversely affected by temperature and humidity.

Tempotac 385 tacky flux is suitable for fine pitch assemblies, as well as standard lead spacing. Tempotac 385 tacky flux provides an 8 hours of screen life and 8 hours of tack time. It exhibits excellent print characteristics and resists moisture pick-up and drying. Tempotac 385 tacky flux does not require the use of modified reflow ovens. Inert atmospheres are not required, but can be used if desired.

Dispensing or screen-printing

Tempotac 385 tacky flux has a stable rheology, meeting the specific requirements of dispensing and screen-printing. The rheology properties of tacky fluxes generally are expressed as 'viscosity'. The viscosity of a tacky flux is dependent on several factors, such as solids content, rheology additives, ambient humidity, and temperature as well as on shear-rate. If properly applied, Cobar tacky flux will assure accurate deposits at all times.

Open time

The "open time", in particular the interval between application of the tacky flux and the placement of the components, is dependent on several factors, such as the ambient humidity and temperature, heat from light sources, thinning as well as on the

working disciplines with regard to storage and handling.

In order to achieve the best results, the following cumulative intervals could be considered as a guideline:

- * Tacky flux on screen.....: 4- 6 hours
- * After application/before placement : 4- 8 hours
- * After placement/before reflow: 8-10 hours

The shorter the intervals, the less chance for complications. Intervals, generally, can be longer when assemblies are stored in a humidity-free refrigerator, during the intermediate periods.

The synthetic resin flux used has been developed to be equivalent activity of an RMA flux, and provides excellent solderability. After soldering/reflow, only trace amounts of a hard, tough, clear colorless, non-corrosive flux residue remain.

Soldering/reflow

A variety of methods may be used to reflow Cobar tacky flux, such as forced convection, infra-red, vapor phase, soldering iron, contact heating, etc.

Physical properties

Product type	Tempotac 385 tacky flux	
Acid number (mgKOH/g)	65.9 (± 5%)	
Color	white	
Flash point (c.o.c.)	>50 °C	
WER (Ohm/cm)	>100,000	
Viscosity	21.5 (± 3.6)	
Corrosion	IPC-SF-818	pass
Copper mirror test	QQS-571-E	pass
Chlorides and bromides	QQS-571-E	none
Spread test	QQS-571-E	pass
Surface insulation res.**	IPC-SP-819	pass

SIR Bellcore TR-NWT-000078 Pass**
 Flux activity classification IPC-SF-818 LR3CN

* at 25 °C; in Cps KCPS, after 2 minutes.
 ** without cleaning



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Cleaning

Tempotac 385 tacky flux features minimal amounts of residues, which are non-corrosive and have excellent dielectric properties. Therefore, they may be left on the assemblies in most of the applications. The tacky flux, however, will also make a great cleaning performance in most current organic, and semi-aqueous solvent systems.

Storage and Handling

Storage of Cobar tacky flux at temperatures between 5 °C and 10 °C is recommended. Under these conditions the product, if kept in hermetically sealed packages, has a shelf life of at least 6 months.

Before the opening of packages, prior to the use of the tacky flux, the package should be brought to ambient temperature during a period of 24 hours.

No more tacky flux should be deposited on the screen as one could use in approx. 4 to 6 hours. Used tacky flux should preferably not be mixed with unused tacky flux. Open jars should be closed immediately after tacky flux has been taken out. Should there be no need for the use of more tacky flux within the next few days, the tacky flux preferably should be stored again at temperatures of approx. 5 °C.

Shipping

All orders for Cobar tacky flux are shipped with 7 days delivery to minimize high temperature exposure and transportation delays. Assured prompt delivery provides fresh tacky flux and minimizes your inventory requirements.

Certificate of compliance

All shipments of this product are provided with a Certificate of compliance, certifying that they have been duly quality controlled in our laboratories, according to the procedures and instructions as set forth in our ISO/TS 16949:2002 quality management system, IATF number 0043973.

Toxicity and Handling

Avoid prolonged and repeated breathing of the vapors during operation. Avoid contact with skin, eyes or clothing. Wear plastic gloves while handling the product. Wash hands thoroughly with soap and warm water after handling. Additional toxicity and safety data is provided in our material safety data sheet, which automatically is supplied with each delivery

Packaging

Available in properly labeled 90 gram jars and 10 gram syringes. Other types of packaging can be supplied on request.